

Message

From: Libelo, Laurence [Libelo.Laurence@epa.gov]
Sent: 5/18/2017 2:35:07 PM
To: Lindstrom, Andrew [Lindstrom.Andrew@epa.gov]
CC: Strynar, Mark [Strynar.Mark@epa.gov]; Lang, Johnsie [lang.johnsie@epa.gov]
Subject: RE: Media Inquiry: GenX, PFASs in the Cape Fear River watershed
Attachments: Keating and Howell 2011 Decomposition of perfluoropolyether lubricants.pdf; SOng et al 2016 Physiochemical Response of Organic Molecules in Head-Disk heating.....pdf

Andy,

I think the data you are looking for is the Dupont/Chemours site monitoring samples. They are in the Dockets but I don't know exactly where.

I will take a look and see if I can find them this morning.

When you can please send me the ether data. I am looking at them this week.

FYI – there are lots of sources of smaller molecules like Genx besides direct release. They are formed by degradation of larger perfluoroether and ether polymers. I am not sure how much occurs in the environment but it does happen during use as lubricants on hard drives and other uses.

See for example the papers by Keating and Howell and Song et al. If the polymers are degraded to form many fragments it seems likely that there will be R-OH products which are volatile. I expect that you will see a global background and higher levels near manufacturing plants as well as around urban areas.

I don't know that they are used there but it would be very interesting to see what is on the soils and other media around the Tesla plant in NV. Battery membranes are a big use of the polyethers. I would expect that any place that deals with lots of modern batteries would be a point source.

Laurence

From: Lindstrom, Andrew
Sent: Thursday, May 18, 2017 9:42 AM
To: Libelo, Laurence <Libelo.Laurence@epa.gov>
Cc: Strynar, Mark <Strynar.Mark@epa.gov>; Lang, Johnsie <lang.johnsie@epa.gov>
Subject: FW: Media Inquiry: GenX, PFASs in the Cape Fear River watershed
Importance: High

Laurence,

Yesterday we got some samples run that seem to show that GenX and a lot of the other PFAS identified in the Sun et al. paper (discussed below) are going offsite – most likely via airborne deposition. These samples are from ponds at various distances from the Fayetteville facility. It looks like pretty high concentrations.

I remember reading some reports on ground water contamination at this site but I can't find them now. Can you send me some of these data?

I recall that it was pretty much like other plants elsewhere. Very high contamination of groundwater, with PFAS reaching ug/L levels.

I'd like to get data that will help us determine if what we are measuring in the nearby ponds is likely to be from an airborne source or due to migration of groundwater.

Thank you very much,

Andy

From: Smith, Emily J.

Sent: Wednesday, May 17, 2017 6:27 PM

To: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>

Cc: Biales, Adam <Biales.Adam@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>; Autrey, Brad <Autrey.Brad@epa.gov>

Subject: FW: Media Inquiry: GenX, PFASs in the Cape Fear River watershed

Importance: High

Andy and Mark,

Below are the questions from the reporter. Please answer the ones that relate to your area of research and expertise. The EPA press office will likely have OW review some of the responses before they are sent back to the reporter. (OW may even develop some of the responses, in the event that there are questions that would best be answered by them, since they have been involved in setting the new advisory levels for PFOA/PFOS.) The EPA press officer will send the final written answers back to the reporter. The reporter would like to have EPA's response by Monday, May 22.

Let me know if you have questions.

Thanks much!

-Emily

Emily J. Smith
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From: Sauerhage, Maggie

Sent: Wednesday, May 17, 2017 4:22 PM

To: Smith, Emily J. <Smith.Emily@epa.gov>; Autrey, Brad <Autrey.Brad@epa.gov>

Cc: Maguire, Megan <Maguire.Megan@epa.gov>; Hubbard, Carolyn <Hubbard.Carolyn@epa.gov>

Subject: Fw: ENESTA: GenX, PFASs in the Cape Fear River watershed

Hi Emily - please see below from the reporter. Can our folks answer these? I'm guessing we'll want to send some of them to other offices, but please have our scientists answer what they can. Let me know if you have any questions.

Thanks,
Maggie

From: Jones, Enesta
Sent: Wednesday, May 17, 2017 2:27 PM
To: Sauerhage, Maggie
Cc: Jones, Enesta; Maguire, Megan; Hubbard, Carolyn
Subject: Fwd: ENESTA: GenX, PFASs in the Cape Fear River watershed

Hi Maggie,

I reached out to the reporter since I handle PFAS. His response is below. Thanks!

I'm hoping to complete my interviews by Monday, May 22. The story is currently set to run in late May or early June.

The lead author (Mei Sun) has confirmed that the treatment plant at Community C in the paper is the Cape Fear Public Utility Authority in Wilmington, N.C. I'd like to know how someone in the community served by CFPUA should interpret these results, specifically in terms of the concentrations of GenX. According to the paper, median concentrations were 671 ppb. I'm asking this in the context of EPA's latest advisory level for PFOA/PFOS, which GenX is meant to replace. As I understand it, the advisory level for PFOA/PFOS is 70 ppt. GenX was present at several times that concentration. Does this raise any health concerns at all? Is this nothing to be concerned about?

What is the status of EPA's review of the environmental and human safety of GenX? What is the EPA's current position regarding the safety of GenX?

Has or will the EPA take any actions regarding the results from this paper? Is the EPA monitoring the situation and/or conducting its own tests regarding GenX in the Cape Fear River watershed? If so, what, specifically is or will it do and when? If nothing is has been done or is planned, why not? What would it take for the EPA to get involved regarding this situation?

The lead author has confirmed that the fluorochemical manufacturer located upstream of the CFPUA is a plant in Fayetteville, N.C., formerly owned by DuPont and now by Chemours. Has the EPA contacted the plant operator regarding these findings? If so, what was the nature of that communication? If not, why not?

There was a photo that ran in The Intercept (<https://theintercept.com/2016/03/03/how-dupont-concealed-the-dangers-of-the-new-teflon-toxin/>) of Mark and Andrew. I'd like to get a copy to run with this story.

Enesta Jones
U.S. EPA
Office of Media Relations
Office: 202.564.7873
Cell Ex. 6 Personal Privacy (PP)

"The root of all joy is gratefulness."

Begin forwarded message:

From: "Daguillard, Robert" <Daguillard.Robert@epa.gov>
Date: May 17, 2017 at 1:34:52 PM EDT
To: "Jones, Enesta" <Jones.Enesta@epa.gov>
Subject: ENESTA: GenX, PFASs in the Cape Fear River watershed

Enesta, I believe you're handling PFOA/PFOS? Let me know if you want to take this one.

Thanks, R.

From: Sauerhage, Maggie
Sent: Wednesday, May 17, 2017 12:08 PM
To: Daguillard, Robert <Daguillard.Robert@epa.gov>
Cc: Maguire, Megan <Maguire.Megan@epa.gov>; Hubbard, Carolyn <Hubbard.Carolyn@epa.gov>
Subject: Fw: GenX, PFASs in the Cape Fear River watershed

Hi Robert,

Our scientists Drs. Andrew Lindstrom and Mark Strynar, have been contacted by Vaughn Hagerty, a reporter with the StarNews in Wilmington, N.C., about a paper they co-authored regarding PFAS in drinking water systems in New Hanover (N.C.) County and Brunswick (N.C.) County. The paper the reporter is referencing is titled "Legacy and Emerging Perfluoroalkyl Substances are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina" - <http://pubs.acs.org/doi/abs/10.1021/acs.estlett.6b00398> - published in the peer-reviewed journal *Environmental Science and Technology* in 2016.

Can you reach out to the reporter and get a deadline and questions? Thanks.

On Wed, May 17, 2017 at 11:00 AM, Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>

From: Vaughn Hagerty [mailto:[Ex. 6 Personal Privacy \(PP\)](mailto:Ex.6PersonalPrivacy@epa.gov)]
Sent: Wednesday, May 17, 2017 9:43 AM
To: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>
Subject: GenX, PFASs in the Cape Fear River watershed

Messrs. Lindstrom and Strynar:

My name is Vaughn Hagerty and I'm a journalist working on a story for the StarNews in Wilmington about PFASs, including GenX, in some drinking water systems in New Hanover and Brunswick counties. Among other sources, I'm referencing the paper "Legacy and Emerging Perfluoroalkyl Substances Are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina."

I've interviewed Professor Sun and am scheduled to speak with Professor Knappe this week. I'd like to discuss the issue with one or both of you, as well, either by phone or via email exchange. Is this something we can arrange?

Regards,

Vaughn Hagerty